

Abstract of the Disclosure

5 The valve of the present invention provides a one-piece valve stem piston having
a piston head and a piston stem. The piston head has a larger diameter than the piston
stem. The stem incorporates only a single sliding O-ring in the area that seals the gas in
the valve cylinder bore. The valve blocks gas flow by sealing against the positioning
each O-ring over the gas flow port. This provides the valve with a low sliding friction
upon piston movement. Pilot control air pressure is reduced because of the lower friction
10 and due to the air operating on the larger surface area of the piston head. All materials in
the construction of the valve are non-metallic.